8054.010NPUS00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	) **BEFORE THE BOARD OF PATENT**
	) **APPEALS AND INTERFERENCES**
Alistair Edwin MAY	)
	) Appeal No.:
Serial No. 10/620,811	)
	) Examiner: Stephen G. Sherman
Filed: July 17, 2003	)
	) Group Art Unit: 2629
For: DETECTING DEVICE USAGE	)
	) September 12, 2007

SUPPLEMENTAL REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR § 41.43(b), this is a reply to the Supplemental Examiner's Answer dated July 13, 2007. Appellant repeats and incorporates herein by reference in their entirety all arguments presented in the main brief on appeal filed January 5, 2007 and reply brief filed June 11, 2007.

ARGUMENT

The Rejection of Claims 1-3, 6, 13, 15-17 and 20 Is Improper

Junod discloses the use of a "hand detection" circuit with an input device such as a mouse, which senses the presence of a user's hand on the mouse by detecting a change in capacitance or inductance of a common antenna also used for

transmitting/receiving RF signals. See Fig. 7 and paragraph 0044. Junod fails to anticipate any of claims 1-3, 6, 13, 15-17 or 20, and this ground of rejection therefore should be reversed.

Junod Does Not Sense a Physical Characteristic of a Radio Channel

The capacitance or inductance of an antenna is not a physical characteristic of a radio channel, as required by the claims.

In the supplemental Examiner's Answer, the Examiner continues to argue that the antenna properly can be interpreted as a "radio channel." The Examiner now reasons that because all of the signals must be sent through the antenna, the antenna is at least "part" of the claimed radio channel.

Appellant reiterates that one of ordinary skill when reading claim 1 in context, would not consider an antenna to be the claimed radio channel. Contrary to the Examiner's allegation that "there is not a limitation in the claim defining that this is what is meant by radio channel," the term "radio" itself means the transmission through space of electromagnetic waves at well-known predefined frequencies. Claim 1 sets forth a radio communication unit for transmitting over a radio channel collected data. Thus, the radio channel is the medium over which a radio wave is propagated. An antenna, on the other hand, is a device that converts electric currents into electromagnetic waves and vice versa. Clearly, the antenna does not propagate the radio wave from a source to a destination as does a radio channel, but instead the electromagnetic wave is created only as it leaves the antenna to travel over the radio channel, or carrier frequency. In other words, the antenna does not function as a medium for propagating electromagnetic waves, but instead is a kind of transducer and therefore it is not true that "the signals must be sent through the antenna" as now alleged by the Examiner. Electric signals are sent to the antenna, whereupon they are converted to electromagnetic waves that leave the antenna to be propagated over a radio channel.

The supplemental Examiner's Answer additionally argues that the interpretation of the radio channel limitation of claim 1 as corresponding to an antenna is not inconsistent with claim 2, because under the Examiner's interpretation that the hand detect circuit is the radio channel sensor, claim 2 as construed by the Examiner requires that the hand detect circuit sense the characteristic of the radio channel (i.e., the capacitance of the antenna according to the Examiner).

This argument ignores the language of claim 2 in its entirety and fails to consider claim 2 as a whole. Claim 2 sets forth that the radio channel sensor is arranged to sense the physical characteristic of the radio channel by means of at least one antenna of the radio communication unit. Thus, under the Examiner's interpretation, claim 2 would require that the hand detect circuit be arranged to sense the capacitance of the antenna by means of at least one antenna, which fails to make sense. As previously pointed out, the Examiner's Answer fails to explain how the antenna would sense a physical characteristic of itself under the Examiner's new interpretation. The supplemental Examiner's Answer underscores this inconsistency and highlights the fact that this interpretation is not based on the ordinary meaning of technical terminology as used and understood by those of ordinary skill in the art, but instead is based on an unwavering effort to stretch the claim language to somehow read on the Junod reference. A person of ordinary skill in the art would understand claim 2 to mean that the radio channel and the antenna are separate entities.

The Examiner further continues to argue that the hand detect circuit senses a physical characteristic of the radio channel as claimed. Appellant maintains that a person of ordinary skill in the art would understand a radio channel, under its ordinary meaning, to be the medium through which radio waves propagate, and hence the physical characteristic of the radio channel could not be the capacitance of an antenna.

However, assuming *arguendo* the Examiner's erroneous interpretation of the antenna as being "part" of the radio channel, it still does not follow that by sensing a characteristic of an antenna, a characteristic of the radio channel is being sensed.

There is a fundamental difference between sensing a characteristic of a component of a channel and sensing a characteristic of the channel itself. For example, given a situation where all of the components of a channel share a common characteristic, but the value of that characteristic is different for each component, it plainly does not follow that the characteristic of any one of those components can be considered to be the characteristic of the channel as a whole. Thus, a capacitance of an antenna, which the Examiner admits cannot be considered more than just part of the claimed radio channel under the Examiner's incorrect interpretation, cannot correspond to the claimed characteristic of the radio channel as set forth in claim 1.

The supplemental Examiner's Answer further asserts that by arguing the antenna 144 is inside and therefore part of the RF circuit, Appellant has acknowledged that the antenna is used for transmitting RF waves and thus somehow "can be considered a radio channel." Appellant has acknowledged no such thing. The Examiner's supplemental Answer misunderstands Appellant's argument in this respect. As stated, paragraph 0050 of Junod discloses that Fig. 8 illustrates the RF circuit 128 of Fig. 7. The capacitive antenna 144 of Fig. 8 thus is inside the RF circuit of Fig. 7, and hence necessarily different than the capacitive antenna 124 of Fig. 7. Claim 1 requires that transmission occur over a radio channel and that a physical characteristic of that radio channel be sensed. Junod, in contradistinction, discloses transmitting radio signals from a first antenna 144, and sensing a physical characteristic of a second antenna 124. Therefore, even if the radio channel could be properly interpreted as an antenna (which it cannot as explained throughout the briefing in this appeal) Junod still would not fulfill the requirement of claim 1 that a physical characteristic be sensed of the same entity over which data is propagated.

Finally, the Examiner's supplemental Answer argues that "it is not important" that the RF circuit is not connected to the antenna when the capacitance is being sensed, reasoning that if the antenna at one time is a radio channel then it is always a radio channel regardless of subsequent connections. The Examiner's supplemental answer

again misunderstands Appellant's argument. To reiterate, at the time when the capacitance of the antenna is being sensed, the antenna is not connected so as to be capable of constituting even part of a radio channel because no signals can be received by the antenna, and no signals can be sent by the antenna. It therefore simply does not follow that the antenna can be considered to be a radio channel when its capacitance is being sensed.

CONCLUSION

For the foregoing reasons as well as the reasons stated in the main brief on appeal and the reply brief filed June 11, 2007, claims 1-20 are submitted to be directed to a new and unobvious radio-capable device with low-power and normal operating modes, which is not taught by the prior art. The Honorable Board is respectfully requested to reverse all grounds of rejection and to direct the passage of this application to issue.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Novak Druce Deposit Account No. 14-1437.

Respectfully submitted,

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